ACTUARIAL SCIENCE (ACTSCI)

ACTSCI 290 Introduction to Actuarial Science  
3 cr. Undergraduate.  
Overview of the actuarial profession, financial risks, and types of insurance products; risk components; and risk evaluation methods.  
Prerequisites: Satisfaction of Quantitative Literacy Part A GER.  
Last Taught: Spring 2022, Fall 2021, Spring 2021, Fall 2020.  
Current Offerings: https://catalog.uwm.edu/course-search/

ACTSCI 391 Investment Mathematics I  
4 cr. Undergraduate.  
Examination of annuities, loans, bonds, portfolio immunization, and interest rate swaps. Foundational preparation for the Financial Mathematics (FM) Professional Actuarial Exam.  
Prerequisites: MATH 232(P).  
Course Rules: May be retaken for cr once. Counts as repeat of MTHSTAT 591.

ACTSCI 391 Actuarial Workshop FM  
1 cr. Undergraduate.  
Continuation of topics from ACTSCI 391 along with practice and preparation for the Financial Mathematics (FM) Professional Actuarial Exam.  
Prerequisites: ACTSCI 290(P).  
Course Rules: Counts as a repeat of MTHSTAT 591. May be retaken for cr once. Counts as repeat of MTHSTAT 591.
ACTSCI 791 Investment Mathematics II
3 cr. Graduate.
Mathematical models in finance and economics, corporate finance.
Prerequisites: graduate standing.
Last Taught: Fall 2021, Fall 2020.
Current Offerings: https://catalog.uwm.edu/course-search/

ACTSCI 793 Actuarial Models I
3 cr. Graduate.
Long term insurance coverage, single life survival models, life insurance, annuities, benefit and premium random variables, mortality models.
Prerequisites: graduate standing.
Last Taught: Fall 2020.
Current Offerings: https://catalog.uwm.edu/course-search/

ACTSCI 794 Actuarial Models II
3 cr. Graduate.
Long term insurance coverage, single life survival models, life insurance, annuities, benefit and premium random variables, mortality models.
Prerequisites: grad st; ACTSCI 593(P); MTHSTAT 362(P).
Last Taught: Spring 2021.
Current Offerings: https://catalog.uwm.edu/course-search/

ACTSCI 796 Actuarial Statistics I
3 cr. Graduate.
Loss models for short term insurance and their statistical fitting.
Prerequisites: graduate standing.
Last Taught: Fall 2021.
Current Offerings: https://catalog.uwm.edu/course-search/

ACTSCI 797 Actuarial Statistics II
3 cr. Graduate.
Credibility theory, ratemaking and reserving.
Prerequisites: graduate standing.
Last Taught: Spring 2022, Spring 2020.
Current Offerings: https://catalog.uwm.edu/course-search/

ACTSCI 891 Actuarial Risk Theory
3 cr. Graduate.
Risk models; premium principles; reinsurance contracts; ruin theory; ordering of risks; bonus-malus systems; IBNR techniques.
Prerequisites: grad st; MATH 571(P) & ACTSCI 596(P), or consent of instructor.
Course Rules: Previously MTHSTAT 795.
Last Taught: Spring 2022, Fall 2019, Fall 2017, Fall 2015.
Current Offerings: https://catalog.uwm.edu/course-search/

ACTSCI 895 Topics in Actuarial Science:
3 cr. Graduate.
Advanced topics in actuarial science.
Prerequisites: graduate standing; 6 credits of 700 level ACTSCI coursework.
Course Rules: Repeatable to 9 credits max. Counts as a repeat of MTHSTAT 896 with a similar topic.
Last Taught: Spring 2021.
Current Offerings: https://catalog.uwm.edu/course-search/